

AL.2.1986-705

CANADIANA

C2

OCT - 1 1986

CANADA ALBERTA CROP INSURANCE REVIEW PANEL

**Background Paper for
Public Hearings**

Alberta
AGRICULTURE

DDN
18/01/86

CANADA ALBERTA CROP INSURANCE REVIEW PANEL

**Background Paper
for
Public Hearings**

Copies of this publication are available from
Alberta Agriculture's district offices.

TABLE OF CONTENTS

	Page
Introduction	1
Review Panel Mandate	1
Part 1 The Underlying Principles of Crop Insurance	2
Principles used in establishing coverage and premiums	3
Part 2 Canada-Alberta Crop Insurance	4
All-Risk Crop Insurance	5
Basic coverage under All-Risk insurance	6
Basic coverage levels	7
Premiums as related to risk and coverage	8
Deciding on crop insurance	10
Coverage and premium adjustments	10
Upward adjustments	11
Coverage reduction	11
Reduction of good experience adjustments	12
Reductions below basic coverage	12
Returning to basic coverage	13
The significance of coverage adjustments	13
Premium Discount for Size of Farm	14
Individual Coverage	14
Special Provisions Under All-Risk Insurance	15
Adjustment for quality	15
Allowance for grain drying	16
Snowed under crops	16
Unseeded acreage coverage	17
Reseeding benefit	17
Claim Adjustments	18
Claim adjustments for spring seeded crops	18
Claim adjustments for pre-harvest and post-harvest losses	18
Cereal Silage	18
Special Crops	18
Hail Endorsement	19
Fresh Vegetables	20
The Livestock Feed Security Program	20
Plan A	21
Plan B	21
Features common to Plan A and Plan B	21
Premium discount	23
Appendix	
1 - Map of Risk Areas	
2 - Map - Leduc County - Showing Soil Type	
3 - Calculations of Basic Coverage	
4 - Map - Livestock Feed Security	

SCHEDULES FOR PRESENTING BRIEFS

Formal Briefs

Four public hearings will be held at Lethbridge, Calgary, Edmonton and Peace River to receive written briefs from farm organizations, Agricultural Service Boards, Agricultural Development Committees, farmers and other interested parties. The hearings will be held during the first 2 weeks of September as follows:

- i) Lethbridge - September 2, 1986 - 1:00 pm
September 3, 1986 - 9:00 am
At the Lethbridge Lodge
- ii) Calgary - September 4, 1986 - 9:00 am
September 5, 1986 - 9:00 am
At the Village Park Inn, 1804 Crowchild Trail NW, Calgary
- iii) Peace River - September 9, 1986 - 9:00 am
September 10, 1986 - 9:00 am
At the Travellers Motor Hotel in Peace River
- iv) Edmonton - September 11, 1986 - 9:00 am
September 12, 1986 - 9:00 am
At the Convention Inn Hotel, 4404 Calgary Trail, Edmonton

Pre-registration is encouraged. If possible, please let the panel know which of the above meetings you will attend and attach a copy of your brief. Mail to:

Crop Insurance Review Panel
Room 306, 3rd floor
7000 - 113 Street
Edmonton, Alberta T6H 5T6
Phone # - 422-5876

Informal Briefs

Once harvest is well along, a number of less formal meetings will be held throughout the province. Individual farmers are encouraged to attend these meetings to present their views on crop insurance. While written briefs will not be required, they will be accepted at these meetings. Discussion between the panel and producers is intended with the producers expressing their views and concerns and the panel inviting producer response to approaches that might be considered in improving the crop insurance program.

Location and dates of these meetings will be widely advertised as soon as they are confirmed.

CANADA ALBERTA CROP INSURANCE REVIEW PANEL HEARINGS

Background Information

Introduction

On January 29, 1986, the Alberta Minister of Agriculture announced that the provincial government would conduct a major comprehensive review of the Canada-Alberta crop insurance program. The review will be carried on by a producer-government review panel chaired by Dallas Schmidt, former minister of agriculture.

The Minister indicated that Alberta producers have faced two consecutive years of weather problems; 1985 being one of the worst crop years in 20 years. As a result of these factors and others, farmers have expressed a number of concerns about the adequacy of crop insurance. The Minister said, "it is time that a good hard look be taken at the crop insurance program to ensure that it is meeting the needs of producers, and if it is not, then how can it be improved".

Review Panel Mandate

The Alberta government's objective is to enhance the crop insurance program. To meet this objective, the Alberta Crop Insurance Review Panel shall undertake a comprehensive review of the Canada-Alberta Crop Insurance Program. The review panel shall report its findings and provide a set of recommendations to the Alberta Minister of Agriculture regarding the most appropriate means by which the crop insurance program may be strengthened.

Specifically, the review panel shall:

1. Assess the level of crop production risk experienced by Alberta producers.

2. Determine the producer's ability and need to offset crop production risk.
3. Determine the ability of the existing crop insurance program to offset producers' crop production risk.
4. Determine alternate approaches to overcome identified weaknesses and evaluate these alternatives.
5. Assess the merit of more closely integrating crop insurance, grain stabilization and the cash advance programs.

The review panel will carry out its mandate by:

1. Receiving written briefs from individual producers, farm organizations and other interested parties.
2. Conducting public hearings at appropriate locations across the province to obtain the views of producers, farm organizations, and other interested parties.
3. Commissioning research projects as may be deemed appropriate and necessary.

Since Canada-Alberta Crop Insurance is a joint federal-provincial program, recommended changes to the program will be negotiated with the federal government.

The purpose of this paper is to provide background information for those who will be preparing submissions.

This paper, prepared as a background for the hearing, provides an overview of the crop insurance program. It includes:

Part 1 - A discussion of the principles of crop insurance.

Part 2 - A detailed review of the existing crop insurance program.

Public hearings will be held throughout the province and submissions are invited from farm organizations, commodity groups, individual producers, and other interested parties.

PART 1 THE UNDERLYING PRINCIPLES OF CROP INSURANCE

Insurance is a means of risk sharing between the participants of an insurance program. The payments or premiums that participants pay into the plan must cover the payments made on claims (indemnities) over time. In other words, an insurance program must be actuarially sound. With respect to crop insurance, the participants include the insured farmer, the federal government and the provincial government. The federal government pays 50% of all premiums. The provincial government pays all administrative costs plus subsidization of premiums for high risk situations and the farmers pay 50% of the premiums less any provincial subsidy. Under the Canada-Alberta Crop Insurance Program, risk is therefore shared between the insured farmers and the two levels of government. Premium rates are based on the level of insured crop coverage and the probability of crop loss occurring over time.

There are a number of criteria that have to be met to determine whether or not a particular loss is insurable:

- a) The risk has to be identifiable and measurable. There has to be sufficient historical information to estimate the probability of loss from an insured risk.
- b) The loss has to be identifiable and measurable. With crops there has to be a mechanism to estimate yield reduction caused by an insured peril.
- c) Losses to be insurable must be accidental or in the case of crops, due to natural hazards and not individually caused by poor management or negligence.
- d) The potential loss must be of sufficient magnitude to warrant protection.
- e) The probability of loss must not be so high that it is uneconomic to insure against it. For instance, it would not be feasible to insure on unirrigated crops in a desert. Because of climate, certain crops such as

grain corn are not insurable north of designated areas.

- f) Insurance coverage must be widely dispersed to reduce the impact of catastrophic losses.

Principles Used in Establishing Coverage and Premiums

Insurance is a sharing of risk between the insured and the insurer. Normally, not all of the risk is insured. For example, with automobile insurance, there is a deductible clause where the insured has to pay the first \$100, \$250 or \$500. Premiums decrease as level of deductibility increases, i.e. where the insured accepts a greater proportion of the risk. Similarly, the Canadian Crop Insurance Act establishes that coverage cannot exceed 80% of the long term area average yield. In Alberta, farmers can insure for 60 or 70% of the long term average yield. However, as explained later, coverage for an individual farmer can increase beyond this and premiums will be reduced when there have been no claims for a number of years.

Premiums generally increase at a much more rapid rate than coverage. If coverage is increased from 60% to 70%, premiums could nearly double. The reason for this is the probability of a claim at 70% coverage is much greater than at 60% coverage. The increase in premium with higher coverage is caused by increasing the chance of having a claim, as well as the increased amount of the claim under the higher coverage option.

With crop insurance the risk of losing a crop or realizing a substantial reduced yield of a crop because of a natural disaster is shared between the insured and the insurer. The cost of this protection to the farmer is the premium paid for coverage. This cost becomes an added input cost to the crop enterprise.

As with fire or automobile insurance, the insured is buying protection against risk, hoping that a claim will never have to be made. Paying into an insurance plan with the expectation of recovering this money is not compatible with the principles of insurance. However, if a disaster does happen, the insured has some protection.

During the 1950's, it was possible to recover from a crop disaster over the next 5 years. Returns to farming varied from 7 to 21 per cent. It took longer in the 1970s for recovery, returns had dropped to between 2 and 5 per cent. Today, in many instances, it will take 10 years or even longer for financial recovery from a complete crop loss. The stakes are high.

Coverage should approximate out-of-pocket or cash costs of production over the long term. By providing this level of coverage, the program enables farmers to continue in business after a serious crop loss and does not interfere with long term farm management decisions. Price options should be established at levels that will result in coverage which approximates out of pocket (cash) costs. (In 1985, 66% of all crops were insured at the 60% level of coverage and 34% at the 70% level. About 90% of crops were insured under the high price option.)

The crop insurance program makes no attempt to insure or guarantee a minimum price. Other programs such as those under the Western Grain Stabilization Act and the Agricultural Stabilization Act are intended to cover market risk situations.

In deciding whether or not to buy crop insurance, three factors should be considered. First, what are the chances of having a substantial crop loss due to natural disaster? Secondly, is adequate insurance available at reasonable cost to cover this kind of loss? Thirdly, without insurance, can the farm business withstand a substantial crop loss? This relates to the farm financial position in terms of financial reserves, cash flow and amount of debt load. Even when the answer to the last question is Yes, many farmers take out crop insurance rather than carry their own risk given the probability that their financial position would be significantly eroded by a crop disaster.

Once a decision has been made to purchase crop insurance, the next step is to decide what options should be chosen to best meet the needs of a particular farm. What crops should be insured? Under all-risk crop insurance, should the low or high coverage options be chosen, remembering the higher the coverage, the higher the premium? Should a hail endorsement rider at

additional cost be purchased? Should only non-subsidized hail insurance be considered? Both premiums and coverage levels vary for each crop within risk areas and for soil types within risk areas. Specific information on these questions for an individual farm can be obtained from an Alberta Hail and Crop Insurance district office. Coverage and premium levels will be discussed in detail in Part 2.

PART 2

CANADA ALBERTA CROP INSURANCE

The Alberta Hail and Crop Insurance Corporation is a Crown corporation of the Province of Alberta established under authority of the Hail and Crop Insurance Act (1969). The corporation administers two separate insurance programs; all-risk insurance including a hail endorsement policy and straight hail Insurance.

The all-risk insurance program is a joint federal-provincial program authorized federally by the Canadian Crop Insurance Act (1959). Under this act, the maximum insurable coverage available through all-risk crop insurance cannot exceed 80% of the long-term area average yield for any single crop. The federal government pays 50% of the insurance premiums for all-risk insurance including the hail endorsement. The provincial government pays all administrative costs as well as additional premium costs for all-risk insurance in high risk situations. Where the basic crop premium exceeds 6% to 8% of the dollar value coverage for the 60% and 70% coverage options, respectively, the province pays the additional amount. The financial help provided by the two levels of government keeps the farmers' overall share of the insurance premium to less than half of what would otherwise be paid.

The premium of the hail insurance endorsement on an all-risk policy is subsidized. There is no premium subsidy where a farmer chooses to take out straight hail insurance under the hail insurance program. This is why the added premium for hail endorsement on an all-risk policy is much less than straight hail insurance.

All-risk crop insurance was first offered in Alberta in 1965 with 1,312 farmers purchasing insurance. By 1985, 23,433 Alberta farmers took out crop insurance covering about 60% of the total crop acreage in Alberta. The program has been actuarially sound over the 20 year period, 1965 to 1984. Total indemnities (money paid on losses) were 97.64% of total premiums collected (loss/premium ratio).

Due to wide-spread drought, crop losses were very high in 1984 when 212 million dollars were paid on claims for a loss/premium ratio of 218%. However, these losses were absorbed by money that had accumulated over the years in reinsurance funds. A second devastating drought in 1985 caused a payout of about 275 million dollars. The deficit caused by the 1985 payout is significant but not alarming as the fund is backed by the governments of Alberta and Canada. The deficit will be paid off with future premium surpluses.

All-Risk Crop Insurance

Crop insurance policies are only issued to the farm operator, whether tenant or owner. When insuring for the first time, a farmer must complete an application at the district hail and crop insurance office on or before April 30th. At this time, the applicant elects the crops to be insured, level of coverage, and whether or not the hail endorsement is desired. For the current crop year, these elections cannot be changed after April 30th.

Crop insurance contracts are continuous. If a policyholder wishes to cancel his/her insurance coverage, this must be done by March 31st of the current crop year. Each policyholder is given advance notice of coverage and premium costs and is encouraged to visit the district office to discuss changes required in his policy.

There are exceptions to the above; August 31st is the last day to apply for fall seeded crops and October 31st is the last day to apply for individual coverage (discussed later).

Each crop is insured independently from other crops. A farmer insuring a crop must insure the total acreage seeded to that crop. However, the crops to be insured are optional. For example,

a farmer may seed wheat, barley and oats but may choose to insure only the wheat.

To be eligible for a claim, the average yield of the total acreage of the insured crop must be reduced below the insured level. Where the grade is low, this is taken into account when determining average yield. Notwithstanding, separate contracts can be made on land separated by a distance of 15 miles (as the crow flies). Then, for claim adjustment purposes, crops grown on each of these land contracts are independent from each other.

Spot losses in an insured crop are not covered under all-risk crop insurance unless the spot loss is sufficiently great to lower the overall average yield below the insured coverage level. However, under straight hail insurance or the hail endorsement on all-risk crop insurance, spot losses for hail damage are covered. If 100 acres of wheat were insured against hail damage and 20 acres were damaged by hail, the 20 acres would be covered regardless of what the rest of the crop yielded. This is why about 90% of insured farmers add the hail endorsement to their all-risk crop insurance policy.

Basic Coverage Under All-Risk Insurance

Insurable crops include most crops grown in Alberta:

oats	grain corn*
barley	dry beans*
rye (spring, fall)	sunflowers
pedigreed seed	sugar beets*
(cereals, oilseeds)	seed peas*
alfalfa, fescue)	canning crops*
mixed grain	potatoes
mustard	alfalfa for
rapeseed	processing*
flaxseed	honey
	fresh vegetables
wheat - spring, winter*, utility*, durum*,	
soft white*	
(* in restricted areas)	

Livestock feed supplies and hay crops can be protected with the Livestock Feed Security Plan (in eligible areas).

Crop insurance protects against major loss caused by any or all of the following natural hazards:

drought (except under irrigation)	wildlife
excessive moisture	frost
hail	wind
plant disease	snow
insect pests	fire caused by lightning

Losses caused by weeds, neglect or poor management, are not covered.

Basic Coverage Levels

The level of basic coverage is related to the 10-year moving average yield for a specific crop grown on summerfallow or on stubble within a designated risk area of the province. The 10-year moving average yield is calculated by averaging the yields for the previous 10-years. The 14 designated risk areas within the province are shown in Appendix 1. The 10-year moving average yield is then adjusted for soil type within the risk area. The soil type is assigned to each section of land on the basis of the soil productivity rating under municipal assessment. Six soil types, A, B, C, D, E and F are used, an example of which is shown in Appendix 2 for the County of Leduc. The long term average yield is then adjusted for soil type.

An example of how 60% coverage on wheat is calculated for both summerfallow and stubble by soil type within a risk area is shown in Appendix 3.

The basic coverage in yield per acre is converted to dollars per acre under a low and high price option. The "high" price option is intended as a conservative estimate of the price for the insured crop in the upcoming year. The "low" priced option results in reduced coverage but at a lower premium. For each crop within each risk area, a coverage and premium rate list are developed under the high and low price options. Considered here is whether the crops were grown on fallow or stubble, 60 or 70% coverage and soil type. The listing is fairly lengthy and is shown in Figure 1, for barley in risk area 10 (North Edmonton).

Referring to the first line in Figure 1 for the low price option, if the crop were a complete failure, the claim would be \$76.95 per acre. If 20 bushels of barley were harvested, the claim would be $(39.3 - 20) \times \$1.96 = \37.83 per acre. Under the high price option, the claim for a complete barley crop failure would be \$89.77. If 20 bushels of barley were harvested, then the claim would be $(39.3 - 20) \times \$2.29 = \44.20 per acre.

It should be understood that crop insurance cannot guarantee market prices for grain. Consequently, because market prices can fall below the price options, it cannot provide assurance that a policyholder will receive an average return from each insured acre equal or greater than his/her per-acre dollar coverage.

Crop insurance provides an overall production guarantee for each insured crop and payment is made for a shortage at the price option selected by the insured.

The dollar coverage per acre indicates the amount the policyholder would receive in the event of a complete loss. It is also the amount used in calculating hail endorsement losses.

Premiums as Related to Risk and Coverage

In general, for each crop, premiums are calculated for each risk area based on the loss experience averaged over the previous 25 years. Premiums directly reflect the probability of loss and the level of coverage. Within each risk area, premiums are assessed in accordance with the kind of crops, risk of loss, level of coverage and the selected price option. Total premiums do not vary appreciably between soil types within a risk area. However, since the level of coverage is less for soils with lower productivity classification ratings (C, D, E and F), the total premium as a percentage of coverage increases. This means the risk is higher and insurance is more expensive per dollar of coverage for the lower rated soils. Under such conditions, the government of Alberta subsidizes the farmer's premium. The province pays the additional premium where the premium to coverage ratio exceeds 6% for the 60% coverage option and 8% for the 70% coverage option. Referring to the first table in Figure 1, under the low priced option for A and B soil, the

farmer's premium is \$3.85 or 50% of the total premium. Here the farmer's premium-to-coverage ratio for 60% coverage is $(3.85 \div 76.95) = 5\%$. However, under soil E where the premium-to-coverage ratio is 8.4% $(3.85 \div 45.90)$, the farmer pays 36% of the premium $(2.75 \div 7.70)$ and the province pays the remaining 14%.

The premium-to-coverage ratio is a good measurement of the relative cost of insurance between soil types for a crop within a risk area. It can be seen from Table 1 that the farmer's premium-to-coverage ratio is not greatly different between soil types. Because of the provincial subsidy on soils with a lower classification, even though risk is higher, the cost of insurance is not significantly higher than for the soils with a higher classification. However, the farmer on lower rated soils does not have the benefit of as high coverage.

In Table 2, the farmer's premium as a percentage of total premium is shown. Regardless of coverage option, the farmer pays about the same percentage of total premium. However, on the soils with a lower classification, he/she pays considerably less than 50% of the total premium.

For all Alberta, farmers pay about 46% of the total basic crop insurance premiums. Alberta pays about 4% and Canada pays 50%.

It is of interest to compare the difference in premium and coverage between the 60% and 70% coverage option. Two levels of coverage are selected from Figure 1 under Soil A - fallow - low price option. For 60% coverage level, the premium is \$3.85 and coverage is \$76.95 per acre. For 70% coverage level, premium is \$6.25 and coverage is \$89.55 per acre. Under 70% coverage, the coverage increased by 16% but the premium increased by 62%.

It will be noted from Figure 1 that the coverage in the Edmonton area for barley seeded into stubble is about 80% of coverage on fallow. Stubble coverage ranges from 65 to 85% of summer fallow depending on the crop and the location in the province. Grain crops grown on irrigated land qualify for higher coverage than crops on dry land.

Deciding on Crop Insurance

From the above discussion, it becomes obvious that crop insurance is a fairly complex program. For simplification, discussion has only involved one crop in one risk area. Once a farmer decides on crop insurance, he/she needs to know the coverage levels and premium rates that apply to his/her farm for the crops to be insured. This is obtainable from the district office of the Alberta Hail and Crop Insurance Corporation.

The farmer makes a farm management decision based on the level of risk protection required. He/she decides on what crops to insure, the level of coverage, the high or low price option and whether or not to purchase hail endorsement. The Alberta Hail and Crop Insurance district office will provide the coverage levels and premium rates that apply to that particular farm.

Coverage and Premium Adjustments

Within any given risk area, some farmers are consistently able to produce above average yields. Others, because of location, soil, hazards or farming practices, frequently produce below average yields. The coverage adjustment plan relates the coverage of an insured more closely to his/her own average yields than is possible using only area averages. Under the plan, coverage and premiums are adjusted upwards or downwards depending on the size and number of losses experienced.

Upward Adjustments

Following each "loss free" year, the insured moves up one step in the schedule as shown in Table 3. For example, where an insured has not claimed for 4 successive years, premiums would decrease by 10% and coverage would increase by 15%. A farmer who discontinues insurance and rejoins loses any good experience benefits that may have been accumulated.

Coverage Reduction

Coverage is reduced when an insured has had an unfavorable loss experience. This adjustment reflects the actual productivity of a farm more accurately than relying solely on area average yields.

Figure 1

**1986 COVERAGE AND PREMIUM RATES
RISK AREA 10 EDMONTON NORTH
INCLUDING COUNTY, M.D. OR I.D.**

BARLEY

LOW PRICE OPTION NO. 1	\$.090/KG	\$1.96/BU
HIGH PRICE OPTION NO. 2	\$.105/KG	\$2.29/BU

**LAC STE ANNE
STURGEON
THORHILD
WESTLOCK
BARRHEAD**

FALLOW - 60% COVERAGE

S O I L	COVERAGE PER ACRE IN:		LOW PRICE OPTION NO. 1			HIGH PRICE OPTION NO. 2		
	KILOGRAMS	BUSHELs	DOLLAR COVERAGE PER ACRE	PREMIUM *		DOLLAR COVERAGE PER ACRE	PREMIUM *	
				TOTAL	FARMER		TOTAL	FARMER
A	855	39.3	\$ 76.95	\$ 7.70	\$ 3.85	\$ 89.77	\$ 9.00	\$ 4.50
B	770	35.4	69.30	7.70	3.85	80.85	9.00	4.50
C	680	31.2	61.20	7.70	3.65	71.40	9.00	4.30
D	595	27.3	53.55	7.70	3.20	62.47	9.00	3.75
E	510	23.4	45.90	7.70	2.75	53.55	9.00	3.20

STUBBLE - 60% COVERAGE

A	685	31.5	\$ 61.65	\$ 6.20	\$ 3.10	\$ 71.92	\$ 7.20	\$ 3.60
B	615	28.2	55.35	6.20	3.10	64.57	7.20	3.60
C	550	25.3	49.50	6.20	2.95	57.75	7.20	3.45
D	480	22.0	43.20	6.20	2.60	50.40	7.20	3.00
E	410	18.8	36.90	6.20	2.20	43.05	7.20	2.60

FALLOW - 70% COVERAGE

A	995	45.7	\$ 89.55	\$12.50	\$ 6.25	\$104.47	\$ 14.60	\$ 7.30
B	895	41.1	80.55	12.50	6.25	93.97	14.60	7.30
C	795	36.5	71.55	12.50	5.70	83.47	14.60	6.70
D	695	31.9	62.55	12.50	5.00	72.97	14.60	5.85
E	595	27.3	53.55	12.50	4.30	62.47	14.60	5.00

STUBBLE - 70% COVERAGE

A	800	36.7	\$ 72.00	\$10.00	\$ 5.00	\$ 84.00	\$11.70	\$ 5.85
B	720	33.1	64.80	10.00	5.00	75.60	11.70	5.85
C	640	29.4	57.60	10.00	4.60	67.20	11.70	5.40
D	560	25.7	50.40	10.00	4.05	58.80	11.70	4.70
E	480	22.0	43.20	10.00	3.45	50.40	11.70	4.05

* THE GOVERNMENT OF CANADA PAYS ONE-HALF OF TOTAL PREMIUM. WHERE THE FARMER PREMIUM IS LESS THAN ONE-HALF OF THE TOTAL PREMIUM, THE DIFFERENCE IS MADE UP BY A HIGH-RISK SUBSIDY PAID BY THE PROVINCE OF ALBERTA

Table 1

FARMER'S PREMIUM AS A PERCENTAGE OF COVERAGE (P/C RATIO)

Soil Type	Low Price Option				High Price Option			
	Fallow		Stubble		Fallow		Stubble	
	Coverage Option		Coverage Option		Coverage Option		Coverage Option C	
	60%	70%	60%	70%	60%	70%	60%	70%
A	5.0%	7.0%	5.0%	7.0%	5.0%	7.0%	5.0%	7.0%
B	5.5%	7.8%	5.6%	7.7%	5.6%	7.8%	5.6%	7.7%
C	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%
D	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%
E	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%	6.0%	8.0%

* Source: Derived from Figure 1 (Barley - Risk Area 10)

Table 2

FARMER'S PREMIUM AS A PERCENTAGE OF TOTAL PREMIUM (1)

Soil Type	Low Price Option				High Price Option			
	Fallow		Stubble		Fallow		Stubble	
	Coverage Option		Coverage Option		Coverage Option		Coverage Option	
	60%	70%	60%	70%	60%	70%	60%	70%
A	50%	50%	50%	50%	50%	50%	50%	50%
B	50%	50%	50%	50%	50%	50%	50%	50%
C	47%	46%	48%	46%	48%	46%	48%	46%
D	42%	40%	42%	41%	42%	40%	42%	40%
E	36%	34%	35%	35%	36%	34%	36%	35%

* Source: Derived from Figure 1 (Barley - Risk Area 10)

(1) Does not include administrative costs

Table 3

Step	1	2	3	4	5	6	7
Good Experience premiums discount %	0	3	6	10	15	20	25
Good Experience coverage increase %	0	5	10	15	20	25	30

* One step is gained for each loss free year

Coverage reduction of an insured is based on the number of loss years during the last 3 years and the amount of loss. The amount of loss is rated by the loss-to-premium ratio.

A loss year is defined as a year when the indemnity (payment on claim) is 20% or more of the total net accumulated premium. Total premium includes both farmer and government portion. Total net accumulated premium is the total accumulated premiums less total accumulated indemnities during the period a farmer has been insured. For example, if the total premium was \$1,000 for each of 5 years, the

accumulated total premiums would be \$5,000. If the total payments received on past claims were \$2,000, the total net accumulated premiums would be \$3,000. A payment for a claim in the current year would have to exceed \$600 (20% of \$3,000) before it would be considered a loss year.

The loss-to-premium ratio for an insured is the accumulated total of all indemnities received, divided by the accumulated total premiums. If an insured has a loss-to-premium ratio of 1 to 1, it means that the total premiums (the insured's plus the government's portion) paid into the plan is equal to the indemnities that have been received

Table 4

Reduction of Good Experience Adjustment

No. of Loss Years in Last 3 years	Loss-to-Premium Ratio	Adjustments (see Table 3 for step description)
1	Less than 1:1	go back 1 step
1	1 - 1.99 to 1	go back 2 steps
1	Over 1.99	go back 3 steps
2	Less than 1:1	go back 1 step
2	1 - 2.99 to 1	go back to basic
2	3 - 5.99 to 1	10% less than basic
2	Over 6.00 to 1	20% less than basic
3	Less than 1:1	go back 1 step
3	1 - 2.99 to 1	20% less than basic
3	3 - 5.99 to 1	30% less than basic
3	Over 6.00 to 1	40% less than basic

* Note: 1 - 1.99 to 1 is read: the loss to premium ratio is between 1 and 1.99 to 1

If the loss-to-premium ratio is 2.00, it means that the insured has been paid twice as much on accumulated indemnities than what has been received by the insurer in total accumulated premiums.

by the insured. If the ratio is less than 1 to 1, the total premiums exceed indemnities and where the ratio is greater than 1 to 1, the insured has received more payments than total premiums paid.

Reduction of Good Experience Adjustments

Benefits realized through good experience are reduced when significant losses are experienced. The level of reduction depends on the number of loss years experienced and the loss-to-premium ratio. The schedule used in 1986 for reducing benefits is given in Table 4.

Reductions Below Basic Coverage

The amount of reduction below basic coverage depends on the number of loss years in the last 3 year period and the size of the losses compared to premiums.

Coverage reduction below basic coverage depending on number of loss years and loss-to-premium ratio are also shown in Table 4.

Where the loss-to-premium ratio is less than the 1.00, there is no coverage reduction below basic coverage regardless of the number of loss years. Where the ratio is between 1.00 and 2.99 to 1, if there were 2 loss years, there is no reduction in coverage, but if there were 3 loss years, coverage would be reduced by 20% below the basic level. Coverage reductions for higher loss-to-premium ratios are shown in the table.

Returning to Basic Coverage

Having being reduced below basic coverage because of loss experience, the insured returns to basic coverage under any one of two conditions:

- Where the insured has had only one loss year in the last 3 years, or
- Where the loss-to-premium ratio becomes less than 1:1.

The Significance of Coverage Adjustments

The following example shows the difference between two extreme situations where one farmer has had no losses and another farmer has had substantial losses.

Example:

Suppose two farmers have been insured for 5 years. They each seed 100 acres of wheat with basic coverage of 450 kg per acre or total basic coverage of 45.000 tonnes.

Farmer A: No losses - 20% Good Experience Discount and 25% Coverage Bonus -

Basic Coverage	45.000 tonnes
Bonus	<u>11.250</u> tonnes
Total adjusted Coverage	56.250 tonnes

Farmer B: 3 Loss Years - loss-to-premium ratio is 4.3 to 1
No Good Experience Premium Discount
and 30% Coverage Reduction -

Basic Coverage	45.000 tonnes
Reduction	<u>13.500</u> tonnes
Total Adjusted Coverage	31.500 tonnes

Dollar difference if \$0.12 per kg price selection is made -

Farmer A - \$6,750 net coverage
Farmer B - \$3,780 net coverage (56% of Farmer A)

In addition to higher coverage, Farmer A is entitled to a good experience discount and so pays 20% less premium.

Premium Discount for Size of Farm

There is also a discount of premiums related to size of farm. It is recognized that as size of farm increases, there is less likelihood of losing a major portion of the crop since the fields are more likely to be widely separated.

The discount is based on the total acreage of all insured crops:

Up to 299 insured acres	- nil
300 - 599 insured acres	- 5%
600 - 899 insured acres	- 10%
900 or more insured acres	- 15%

Individual Coverage

The level of coverage with regular crop insurance is based on average yields within a risk area adjusted for soil type. An individual's coverage may go upwards or downwards depending on loss experience.

Individual coverage is an option whereby the level of coverage is established by using a farmer's own yields regardless of whether the crop was grown on fallow or stubble. Also, coverage level differences for soil type are eliminated. Each year, yield information is collected after harvest and incorporated into the coverage calculation for next season. Level of coverage is based on 10-year average yield data for each crop. Individual historical yield data are acceptable if well documented in the form of permit books or sale receipts of grain. A farmer can be phased into individual coverage where there are less than 5 years of yield records. This is done by using area average yields (adjusted for the individual's loss experience) for those years where individual records are not available.

Coverage moves upwards or downwards in accordance with the actual yield experience. The coverage adjustment schedule under the basic insurance does not apply to those on individual coverage.

Coverage is limited to 60 or 70% of the average yield that is established.

Premium rates are based on the area average premium weighted for the proportion of fallow and stubble. Assume that in a risk area the proportion of crop seeded is 25% on fallow and 75% on stubble and the premium is \$3.00 and \$2.00 per acre, respectively. Then with individual coverage, the premium would be $[(0.25 \times \$3.00) + (0.75 \times \$2.00)] = \$2.25$ per acre, regardless of whether the crop was seeded into fallow or stubble.

Premium adjustments for loss experience and size discounts (acres insured) apply the same as described under basic coverage.

Under the basic plan, coverage level can be increased by 30% above average yields with good experience. Therefore, individual coverage may only be of interest to a farmer who consistently

produces 30% or more above the area average yields for his particular soil.

Individual coverage was designed for those farmers who consistently produce above average and may have relatively high input costs. If they feel that the basic plan does not provide high enough levels of coverage, individual coverage can be considered.

Special Provisions Under All-Risk Insurance

Adjustments for Quality

As explained earlier, a crop is covered up to a specified yield per acre. However, if the quality of the grain falls below a designated grade, the loss of grade is taken into consideration in determining if an indemnity is payable and the amount of the indemnity. The designated grades are as follows:

Spring wheat	- No. 2 Canada Western Red Spring
Durum wheat	- No. 2 Canada Western Amber Durum
Utility wheat	- No. 2 Canada Utility
Soft white Spring wheat	- No. 2 Canada Western Soft White Spring
Winter wheat	- No. 2 Alberta Winter
Oats -	- No. 1 Feed
Barley	- No. 1 Feed
Mixed grain	- No. 1, 2, 3, 4 or 5
Rye	- No. 2 Canada Western
Rapeseed	- No. 1 Canada
Flaxseed	- No. 1 Canada Western
Mustard	- No. 1 Canada Western

Adjustment factors are recalculated annually based on the Wheat Board initial prices for board marketed grain or the market price for others. For example, if an insured is covered at \$0.15 per kg for up to 32,600 tonnes of wheat and harvests 27,215 tonnes of poor quality wheat, then without a grade adjustment, the claim would be $[(32,600 - 27,215) \times \$150.00/\text{tonne}] = \$807.75$.

If the CWB initial price is \$0.15 per kg for No. 2 CWRSW and the price for the poor quality grade is \$0.12 per kg, then the adjustment factor for grade is $0.12 \div 0.15 = 0.80$. The production adjusted for grade is $27.215 \times 0.80 = 21.772$ tonnes. The payment adjusted for grade $[(32.600 - 21.772) \times \$150.00/\text{tonne}] = \$1633.20$.

When actual yields are higher than the coverage level but grades are lower than the designated grade, a claim may still be realized when the grade adjustment is made, provided it brings the adjusted production below the coverage level.

Allowance for Grain Drying

Where a claim is payable and where the grain has been artificially dried before post harvest inspection, an allowance will be made for the cost of drying the grain. The allowance is about \$4.85 per tonne for coarse grains and from \$6.60 to 7.85 per tonne for oil seeds.

Snowed Under Crops

The inability to complete harvest due to adverse weather is one of the perils under all-risk insurance. A claim may be filed where total harvested production of a crop is less than total coverage. In other words, spot loss for an unharvested crop is not covered if harvested crop equals or exceeds the coverage level..

To be eligible, unharvested acreage must be reported by November 30. An inspection is then made and harvested production is measured. However, final settlement of the claim cannot be made until the following spring when harvesting is complete or before unharvestable insured crops are destroyed.

An unharvested crop claim may be rejected if the unharvested acreage of neighboring farms is less than 10%.

An advance is not payable unless unharvested acreage exceeds 20% of the total crop acreage.

The following example shows how the advance is calculated.

A farmer insures 200 acres of crops for a coverage level of \$90 per acre. One hundred acres remains unharvested. The eligible unharvested acreage for an advance is:

200 acres less 20% = 160 acres
160 acres less 100 acres unharvested = 60 acres

The amount of the advance is 25% of the coverage level in dollars per acre. In this case, $\$90.00 \times .25 = \22.50 per acre.

The amount of the advance on the adjusted unharvested acreage is $60 \text{ acres} \times \$22.50 = \$1,350$.

Any allowance paid on the snowed-under provision is regarded as part of the total loss payable on a crop when the claim is finalized. However, when harvest is completed, if no loss is payable on the crop or if the overall loss is less than the advance, the insured does not have to repay the excess received.

Unseeded Acreage Coverage

For an additional premium of 50 cents per acre, an insured may purchase protection against the inability to seed part or all of a crop acreage because of wet weather. The acreage intended for seeding must be declared by April 30. The land must have been prepared for seeding, that is cultivated either the previous fall or that spring in time to permit seeding before June 20. If the insured is able to seed all the intended acreage, the additional premium is applied on his/her normal premium on crops seeded. Payment is restricted to unseeded acreage blocks of 5 acres or more. A payment may be rejected where less than 10% of the acreage remains unseeded in a given area. The corporation may also reject coverage on land subject to repeated flooding.

The payment for eligible unseeded acreage is \$20 per acre plus or minus coverage adjustments. There is a 10% deductible clause on declared seeded acreage.

The indemnity of an insured is arrived at as follows:

	Acres
Total declared acreage	300
Less: 10% deductible (mimumim of 20 acres)	30
Maximum eligible acreage	270
Less: acres seeded to all crops whether insured or not	75
Eligible non-seeded acreage	195
Payment @ \$20.00 per acre (subject to adjustment)	\$3,900

The payment for inability to seed is not intended to replace the crop which the insured hoped to grow, but rather to pay for the cost of seedbed preparation.

Reseeding Benefit

A coverage of \$12 per acre is payable under all-risk insurance on reseeded insured acreage that had been damaged by natural hazards such as wind, crusting, etc. There must be blocks of 10 acres or more of unseeded crop before a claim is eligible. For spring seeded crops, the claim for a reseeded benefit must be made before June 30. The crop must be inspected and authorization given by the corporation before it is reseeded as no payment will be made.

Claim Adjustments

Claim Adjustments for Spring Seeded Crops Worked Down by June 30

If a crop or part of a crop is worked down by June 30, the insured has 3 options:

- If reseeded, a reseeded benefit may be claimed,
- a refund of premium may be made, or
- a claim can be made based on one half of the coverage less appraised potential production had the worked down acreage been left for harvest. Where only a portion of an insured crop is worked down,

final settlement is deferred until the remainder of the crop is harvested at which time harvested and appraised production are taken into account.

Claim Adjustments for Pre-Harvest and Post-Harvest Losses

When there is a claim, the insured must notify the district office by telephone or registered mail. In the case of pre-harvest damage, the district office should be notified of a claim before the crop is worked down or harvested for feed. Claims are settled on the basis of loss appraised by the adjuster. For post-harvest claims, notification must be given within 15 days after harvest is completed. The grain harvested from the current crop must be stored so that it can be measured by the adjuster. Details of procedures for settling claims are available at the district office. It is important that the insured clearly understand all of the rulings and implications that relate to his/her particular situation.

Cereal Silage

Cereal crops grown for greenfeed or silage may either be insured or excluded as the policyholder chooses. Uninsured acreages seeded to greenfeed, silage or pasture should be noted on the Report of Seeded Crops.

Special Crops

Details on insuring special crops can be obtained at the district office. For example, deadline dates to insure fall seeded crops and area eligibility for special crops such as soft wheat, durum wheat or corn vary depending on the crop.

Hail Endorsement

Hail insurance against spot losses from hail damage can be purchased as an endorsement to all-risk crop insurance. Hail endorsement is optional and a separate premium is payable. The premium is calculated at 40% of the hail premium rate of the Alberta Hail and Crop Insurance Corporation as established for each township.

The coverage level is the same as the basic coverage under all-risk adjusted for loss experience. The loss experience under hail endorse-

ment does not affect the basic coverage levels or coverage adjustments of all-risk insurance.

Combined loss payments on an insured crop under both the basic coverage of all-risk and hail endorsement, cannot exceed the total coverage for that crop under the all-risk policy. To this level of loss, a hail endorsement indemnity is additional to the basic coverage indemnity. The relationship of hail endorsement indemnity to basic coverage indemnity is shown in the following example:

An insured has basic coverage and hail endorsement on 100 acres of wheat at a coverage level of 430 kg per acre (43 tonnes). The price option elected was \$0.12 per kg (\$120 per tonne) for a total insured coverage level of \$5,160 (100 x 430 x 0.12). See Case A and B below.

However, the payment under the basic program would be reduced to \$3,096 because combined payments under the hail endorsement and basic program cannot exceed the coverage of \$5,160.

Election of hail endorsement must be made before May 1 for spring seeded crops and August 1 for fall seeded crops. The election remains effective from year to year unless cancelled. The endorsement, if cancelled by the insured for one year on any crop, will continue in subsequent

years. Notification of permanent cancellation must be given by May 1.

Fresh Vegetables

In 1986, crop insurance for fresh vegetables was made available for the first time. Crops eligible for insurance are fresh carrots, sweet corn, fresh rutabagas and cooking onions. Coverage varies from \$342 an acre for dryland corn to \$1,284 an acre for irrigated cabbage. In order to insure a crop, a minimum of 2 acres must be grown with all insured production being sold through the Alberta Fresh Vegetable Marketing Board.

Fresh vegetable insurance is an individual coverage program. Initially, the individual average yield is based on 5 years of area average or up to 5 years of the insured's yield data. Initially, coverage is restricted to 70% of the individual average yield but after three years can be increased depending upon the loss experience of the insured.

Irrigation coverage is available but only in recognized irrigation areas.

Details on insuring fresh vegetables can be obtained at the district office.

Case A Assume a 40% hail loss and a later harvest of 22 tonnes.

Hail endorsement payment		
40% of 43 tonnes = 17.200 tonnes @ \$120.00		= \$2,064.00
Basic crop policy payment		
43 tonnes less 22 tonnes harvested = 21 tonnes @ \$120.00		= <u>\$2,520.00</u>
Total payment		= <u>\$4,584.00</u>

Case B

Similar to above except only 10 tonnes were harvested

Hail endorsement payment (same as above)		= \$2,064.00
Basic crop policy payment		
43 tonnes less 10 tonnes harvested = 33 tonnes at \$120.00 per tonne		= <u>\$3,960.00</u>
Total claim		= <u>\$6,024.00</u>

The Livestock Feed Security Program

The previous forage insurance program which was available as a pilot project in parts of Alberta has been replaced with the Livestock Feed Security Program now available in central and southern Alberta (map - appendix 4). As with the basic crop insurance program, the federal government pays 50% of the premiums and the province pays all administrative costs.

Insurance is available to those who farm within an eligible area and who grow 20 or more acres of hay or keep 10 or more animal units of livestock. Only owner operators or tenant operators are eligible for insurance.

The program is unique from two perspectives. Either the livestock feed supply or forage acreage can be insured against losses from drought. Secondly, payment is based on the comparison between the average hay production

in each quarter township and the long term area average. Regardless of an individual producer's forage yield, a payment would be received if triggered for the quarter township where he/she is eligible.

There are 11 designated areas in the province (map -appendix 4). Forage production is determined by measuring the actual yield of representative hay fields in each area and by studying weather reports in each quarter township (3 miles x 3 miles). Rainfall, carryover soil moisture, daily temperature and sunshine are taken into account. Each insured producer is supplied with a rain gauge and is required to maintain daily records of rainfall on his/her farm.

A producer may insure under one of two plans; Plan A (hay acreage) or Plan B (animal units). An insured must insure all of the hay acreage or all of the animal units on the farm and must select the plan that offers the largest total coverage.

Table 5

1986 Maximum Coverage and Farmer Premium Rate

Area Number	Plan A	Plan B	Premium Rate Plan A or B (Percent of Coverage)
	Hay Maximum Coverage (Dollar per acre)	Livestock Maximum Coverage (Dollar per animal unit)	
1	100.00	250.00	6.0
2	110.00	250.00	6.5
3	110.00	250.00	6.5
4	100.00	250.00	6.5
5	90.00	250.00	7.0
6	80.00	250.00	7.5
7	70.00	250.00	8.0
8	60.00	250.00	8.5
9	50.00	250.00	9.0
10	50.00	250.00	9.5
11	50.00	250.00	10.0

Plan A (Hay Acreage)

Insurable crops are perennial "tame" grasses and legumes grown on dryland for livestock feed. Pastures, irrigated hay crops or native grasses are not insurable.

Coverage ranges from a minimum of \$10 to \$110 per acre depending on the area and amount of coverage selected. Premium rates (farmer share only) range from 6% to 10% of coverage depending on the area (Table 5).

Plan B (Animal Units)

The purpose of this plan is to provide an option to those farmers who normally purchase all or part of their hay. A serious drought causes a rise in hay prices and generally adds to transportation costs since it is frequently more difficult to locate hay close to home.

One animal unit consists of:

one cow, 1 bull, 2 calves, 2 heifers, 2 steers, 1 horse, 5 ewes, 5 rams, 10 lambs, 5 goat does, 5 goat bucks or 10 goat kids.

In reference to age by April 30, cows and bulls refers to animals 2 years and over; calves, steers and heifers - under 2 years; ewes, rams, does and bucks - 1 year or over; lambs or kids - under 1 year. Regardless of age, one horse is considered one animal unit.

All indemnities are paid on the basis of hay losses assessed on a quarter township basis within an area, the same as under Plan A. Coverage area under Plan B is defined as the main feeding location of the livestock. Coverage is available in \$10 increments up to a maximum of \$250 per animal unit. Premiums as a percent of coverage, are the same as for Plan A (Table 5).

Features Common to Plan A and Plan B

Maximum Coverage Levels and Farmer Premium Rates for 1986 are shown in Table 5.

Basis of payment under both plans is the assessed loss of production of representative hay crops for a one-quarter township within a risk area. The payable indemnity is 2% of the dollar coverage for each 1% that assessed production is

below 80% of normal. This relationship is illustrated in Table 6.

Table 6

Relationship of Indemnity to Assessed Production Loss and Coverage

Calculated Production as a Percentage of "Normal"	Claim as a Percentage of Coverage
80% or more	0
70%	20
60%	40
50%	60
40%	80
30% or less	100

Coverage levels may be selected from \$10 per acre to the maximum under Plan A and from \$50 per animal unit to the maximum for Plan B.

Example 1 - Plan A

A farmer in risk area 3 (Table 5) insures 200 acres of hay for \$50 per acre at a premium cost of (0.065×50) \$3.25 per acre. The calculated production is 60% of normal. The claim would be $(\$50.00 \times 0.40)$ \$20 per acre for a total indemnity of $(\$20 \times 200 \text{ acres})$ \$4,000.

Example 2 - Plan B

Another farmer in the same area insures 75 animal units at \$100 coverage per animal unit or \$7,500 coverage in total. The premium is \$6.50 per animal unit $(0.065 \times \$100.00)$ for a total premium of (75×6.50) \$487.50.

The claim is $(\$7,500.00 \times 0.40) = \$3,000$

Premium Discount

Discounts are given for good experience and continuous coverage. Those insured who discontinue the program and rejoins lose their accumulated discount, but retain their loss-to-premium ratio. The schedule for premium discounts is as follows:

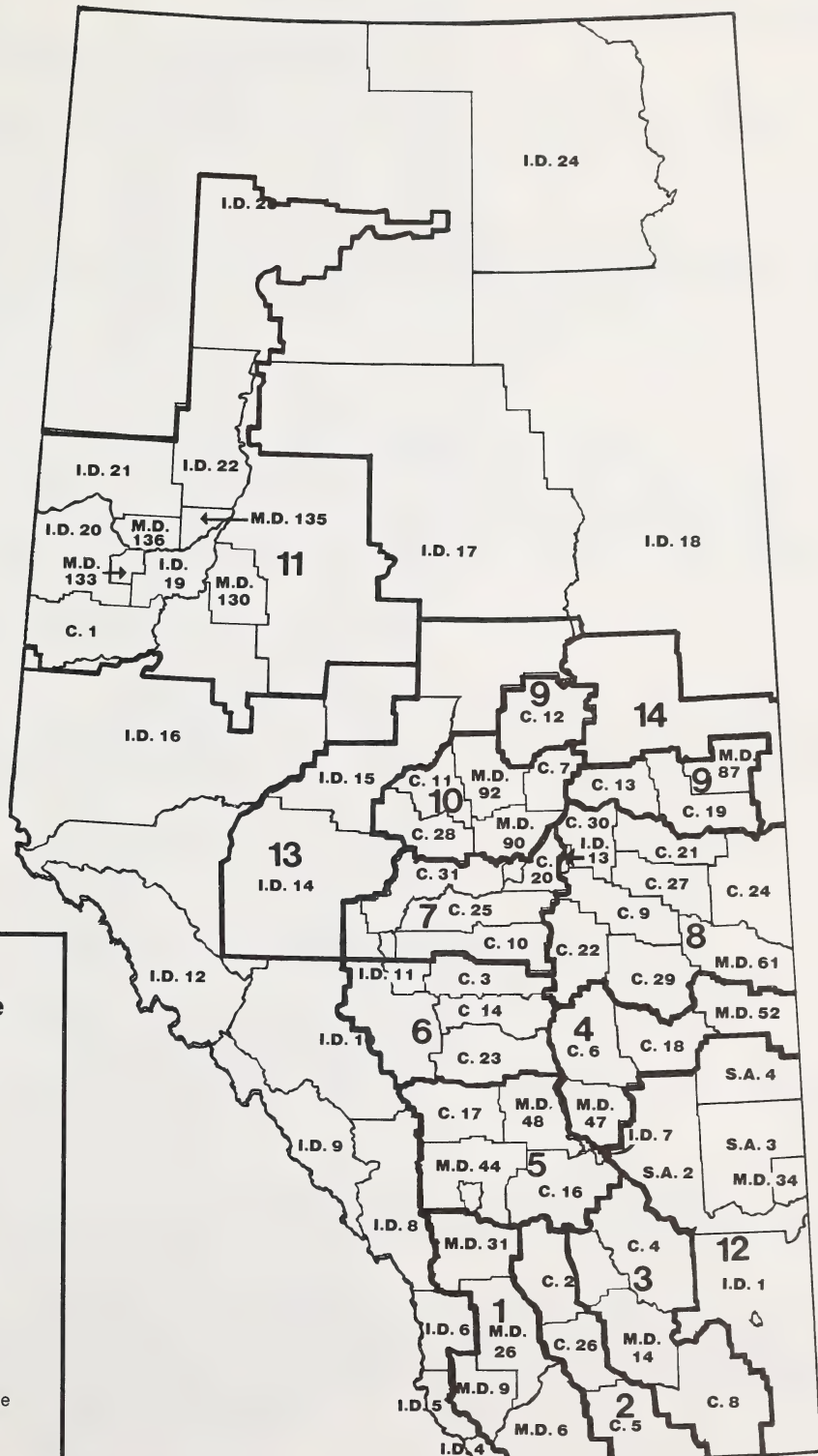
March 31 is the deadline for applying under the Livestock Feed Security Program. However,

Table 7**Premium Discounts**

Accumulated loss to premium ratio	Years of Continuous Participation							
	0	1	2	3	4	5	6	7 (or more)
	Percent Discount on Premiums							
0.00 - 0.99	0	3	6	9	12	15	18	21
1.00 - 1.99	0	0	3	6	9	12	15	18
2.00 - 4.99	0	0	0	0	3	6	9	12
5.00 or more	0	0	0	0	0	0	3	6

unless cancelled, an insured's contract is automatically renewed each year. The Alberta Hail and Crop Insurance district office must be advised in writing of changes in acreage, livestock numbers or coverage level.

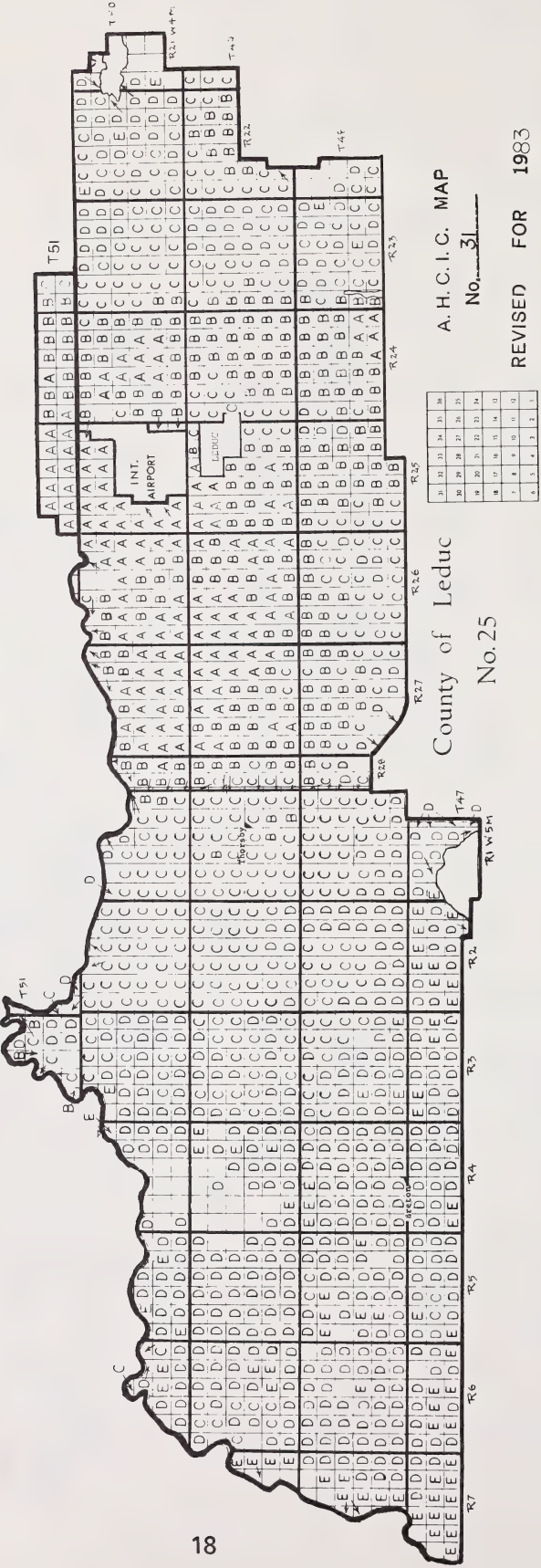
Appendix 1



Crop Insurance Risk Areas

1. High River - Cardston
2. Vulcan - Warner
3. Taber - Forty Mile
4. Drumheller - Provost
5. Calgary North
6. Red Deer - Ponoka
7. Edmonton South
8. Camrose - Vermilion
9. Athabasca - St. Paul
10. Edmonton North
11. Peace River
12. Special Areas
13. Edson - Slave Lake
14. Lac La Biche - Cold Lake

Appendix 2



Appendix 3

How Basic Coverage is Calculated

The following example shows how coverage is calculated for red spring wheat when grown on summerfallow and stubble.

Example

The 10-year moving average yield for a risk area is 30 bushels of red spring wheat per acre. At 60% basic coverage, the average coverage for the risk area would be $0.6 \times 30 = 18$ bushels. The wheat acreage was 40% on summerfallow and 60% on stubble. The yield on stubble is 75% of fallow yield.

A. To calculate 60% of the 10-year moving average yield for each soil type within the risk area for spring wheat:

- The 10-year moving average yield for a risk area is 30 bushels of wheat per acre.
- At 60% basic coverage, the average coverage for the risk area is $0.6 \times 30 = 18$ bushels per acre.
- As derived from municipal assessment data, the productivity of B soil is rated at 90% of the productivity of A soil, 80% of A soil for C soil, 70% for D soil, 60% for E soil and 50% for F soil.
- There are 4 soil types in the risk area, A, B, C and D. Eight per cent of the soil is A, 35% is B, 52% is C and 5% is D.
- Let $x = 60\%$ of the yield for A soil.
- Then $[0.08x + 0.9(0.35x) + 0.8(0.52x) + 0.7(0.05x)] = 18$
 $0.846x = 18$

$$x = 18 \div 0.846 = 21.3 \text{ bushels per acre.}$$

- The calculated yields per acre at 60% coverage for each of the soil types for combined fallow and stubble acreage is:

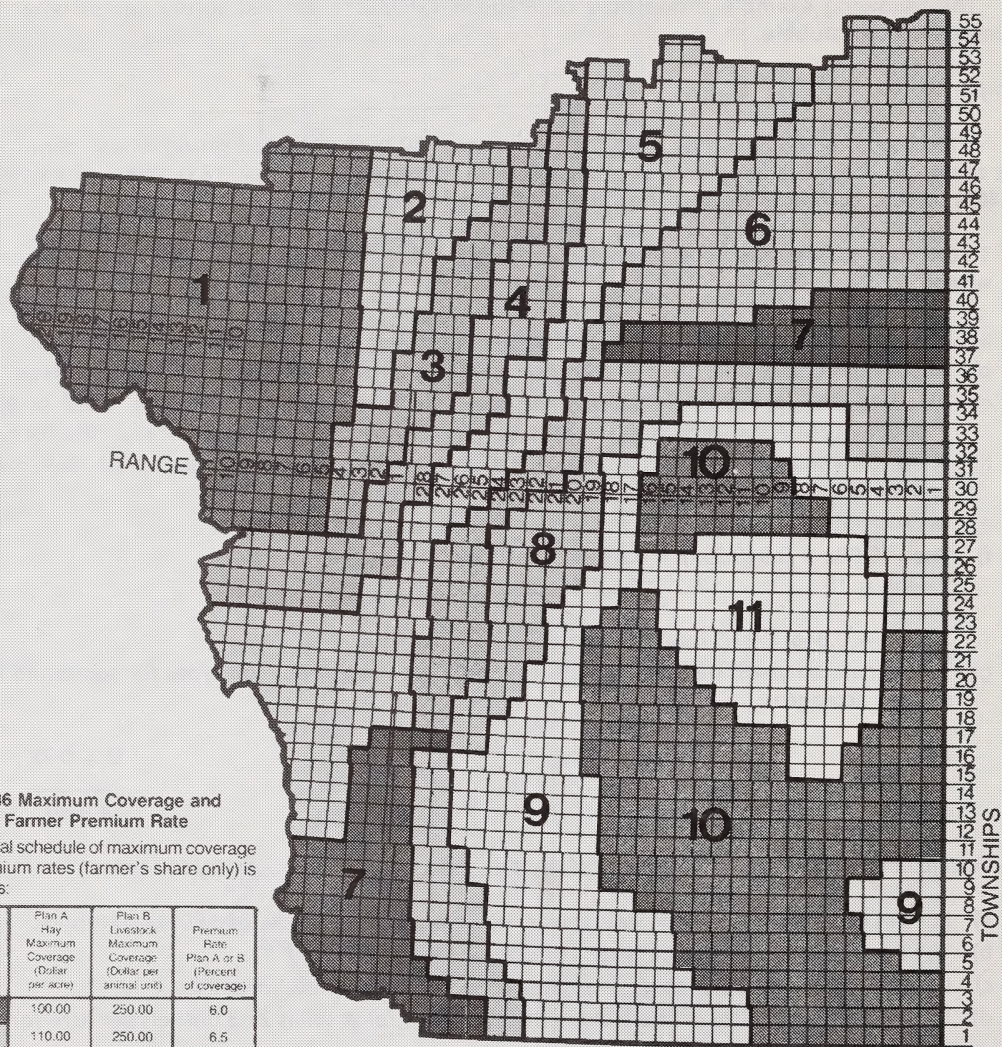
$A = x$	$B = 0.9x$	$C = 0.8x$	$D = 0.7x$
<hr/>	<hr/>	<hr/>	<hr/>
21.3 bu	19.17 bu	17 bu	14.9 bu

B. To calculate 60% of the 10-year moving average yield for summerfallow by soil type:

- For this example, 40% of the wheat was grown on summerfallow and 60% on stubble.
- The average yield on stubble is 75% of that on fallow.
- Let y equal 60% of the moving average yield on summerfallow for soil A.
- From A. g) above, 60% of the moving average yield for A soil is 21.3 bushels per acre for fallow and stubble combined.
- Then $[0.4y + (0.75y \times 0.60)] = 21.3$
 $0.85y = 21.3$
 $y = 25 \text{ bu per acre}$ which is the 10-year moving average yield for A soil on summerfallow.
- The 10-year average yield for B, C and D soil can now be calculated directly by multiplying 25 bu by 0.9, 0.8 and 0.7, respectively.

C. Sixty per cent of the 10-year moving average yields for stubble can be calculated directly since it has been determined that the long term average yields on stubble are 75% of fields on fallow. For A soil, the calculated moving average yield on stubble would be $0.75 \times 25 = 18.75 \text{ bu per acre}$; B soils $[0.75 \times (25 \times 0.9)] = 16.8$; C soils $[0.75 \times (25 \times 0.8)] = 15$ and D soils $[0.75 \times (25 \times 0.7)] = 13.1$ bushels per acre.

Appendix 4



1986 Maximum Coverage and Farmer Premium Rate

The annual schedule of maximum coverage and premium rates (farmer's share only) is as follows:

Rate Area Number	Plan A Hay Maximum Coverage (Dollar per acre)	Plan B Livestock Maximum Coverage (Dollar per animal unit)	Premium Rate Plan A or B (Percent of coverage)
1	100.00	250.00	6.0
2	110.00	250.00	6.5
3	110.00	250.00	6.5
4	100.00	250.00	6.5
5	90.00	250.00	7.0
6	80.00	250.00	7.5
7	70.00	250.00	8.0
8	60.00	250.00	8.5
9	50.00	250.00	9.0
10	50.00	250.00	9.5
11	50.00	250.00	10.0

To find out what

LIVESTOCK FEED SECURITY will cost:

1. Check your farm's location on the map to see your Rate Area Number.
2. Multiply the Premium Rate in that area by the Dollar Coverage (Plan A or Plan B) by the Total Insured (acres or animal units).

This is your Premium in Dollars per Year.

N.L.C. - B.N.C.



3 3286 06863987 7